

WHAT IS CLAIMED IS:

1. A circuit comprising:  
a compare unit; and  
a datapath, coupled to said compare unit, wherein said datapath comprises  
a plurality of adder units,  
a selection unit, coupled to said adder units, and  
a plurality of clocked storage stages.
2. The circuit of claim 1, further comprising:  
an adder unit, coupled to an output of said selection unit; and  
a memory device, coupled to said compare unit and said adder unit.
3. The circuit of claim 2, wherein  
a signal path is from an input of said compare unit to an output of said adder unit, and  
at least one of said clocked storage stages is coupled in said signal path.
4. The circuit of claim 2, wherein  
said adder units are coupled to inputs of said compare unit, and  
said selection unit is coupled to an output of said compare unit.
5. The circuit of claim 4, wherein  
at least one of said clocked storage stages are coupled at a one of an input to a one of said adder units and an output of said adder unit.
6. The circuit of claim 4, wherein  
at least one of said clocked storage stages is coupled within at least one of a one of said adder units,

said compare unit and said selection unit.

7. The circuit of claim 2, wherein said datapath is configured to receive a signal comprising a plurality of channels.

8. The circuit of claim 7, wherein said channels are interlaced with one another.

9. The circuit of claim 2, further comprising: a multi-stage clocked storage device, wherein said multi-stage clocked storage device comprises a plurality of said clocked storage stages.

10. The circuit of claim 1, wherein said adder units are coupled to inputs of said compare unit, and said selection unit is coupled to an output of said compare unit.

11. The circuit of claim 10, wherein at least one of said clocked storage stages are coupled at a one of an input to a one of said adder units and an output of said selection unit.

12. The circuit of claim 10, wherein at least one of said clocked storage stages are coupled between said adder units and said selection unit.

13. The circuit of claim 10, wherein a plurality of said clocked storage stages are coupled between said adder units and said selection unit.

14. The circuit of claim 12, wherein at least one other of said clocked storage stages is coupled between said compare unit said selection

unit.

15. The circuit of claim 10, wherein at least one of said clocked storage stages is coupled within at least one of a one of said adder units, said compare unit and said selection unit.

16. The circuit of claim 1, wherein said datapath is configured to receive a signal comprising a plurality of channels.

17. The circuit of claim 16, wherein said channels are interlaced with one another.

18. The circuit of claim 16, wherein a number of said channels is equal to a number of said clocked storage stages.

19. The circuit of claim 1, further comprising: a multi-stage clocked storage device, wherein said multi-stage clocked storage device comprises a plurality of said clocked storage stages.

20. The circuit of claim 19, wherein said multi-stage clocked storage device further comprises said clocked storage stages.

21. The circuit of claim 20, wherein said multi-stage clocked storage device is coupled at one of an input to a one of said adder units and an output of said selection unit.

22. The circuit of claim 1, further comprising: a plurality of programmable function blocks, wherein at least one of the programmable function blocks is configured to implement said circuit.

23. A programmable logic device comprising the circuit of claim 1.

24. A method comprising:

producing a first sum from first data received at a first input of a plurality of inputs and second data received at a second input of said inputs;  
producing a second sum from third data received at a third input of said inputs and fourth data received at a fourth input of said inputs;  
producing a selected sum by selecting a one of said first sum and said second sum, wherein said selected sum is provided at an output; and  
performing a plurality of clocked storage operations on a signal, wherein said signal is conveyed on a signal path between a one of said inputs and said output.

25. The method of claim 24, further comprising:

producing a first output by comparing said first sum and said second sum, wherein said comparing controls said selecting.

26. The method of claim 25, further comprising:

producing an offset; and  
producing a third sum from said offset and said selected sum, wherein said third sum is provided at said output.

27. The method of claim 26, wherein said producing said offset further comprises:

producing a second output using said first sum and said second sum, wherein said producing said offset is based on said second output.

28. The method of claim 24, further comprising:  
receiving a data signal comprising a plurality of  
channels, wherein  
a number of said channels is equal to a number of  
said clocked storage operations.

29. The method of claim 24, further comprising:  
producing a plurality of sums, wherein  
said producing said sums comprises producing said  
first sum and producing said second sum, and  
said producing said selected sum further comprises  
selecting a selected one of said sums.

30. An apparatus comprising:  
means for producing a first sum from first data received  
at a first input of a plurality of inputs and  
second data received at a second input of said  
inputs;  
means for producing a second sum from third data  
received at a third input of said inputs and fourth  
data received at a fourth input of said inputs;  
means for producing a selected sum comprising means for  
selecting a one of said first sum and said second  
sum, wherein  
said selected sum is provided at an output; and  
means for performing a plurality of clocked storage  
operations on a signal, wherein  
said signal is conveyed on a signal path between a  
one of said inputs and said output.

31. The apparatus of claim 30, further comprising:  
means for producing a first output comprising means for  
comparing said first sum and said second sum,  
wherein  
said means for comparing controls said means for

selecting.

32. The apparatus of claim 31, further comprising:  
means for producing an offset; and  
means for producing a third sum from said offset and  
said selected sum, wherein  
said third sum is provided at said output.

33. The apparatus of claim 32, wherein said means for  
producing said offset further comprises:  
means for producing a second output using said first sum  
and said second sum, wherein  
said means for producing said offset is configured  
to use said second output to produce said  
offset.

34. The apparatus of claim 30, further comprising:  
means for receiving a data signal, wherein  
said data signal comprises a plurality of channels,  
said channels are interlaced with one another, and  
a number of said channels is equal to a number of  
said clocked storage operations.

35. The apparatus of claim 30, further comprising:  
means for producing a plurality of sums, wherein  
said means for producing said sums comprises said  
means for producing said first sum and said  
means for producing said second sum, and  
said means for producing said selected sum further  
comprises means for selecting a one of said  
sums.